

Like medicine, nursing has developed a subspecialty structure, allowing nurses to develop greater expertise in more limited areas. This should result in increased status, income, and decision-making responsibility. Nursing specialties have, for the most part, been organized around medical subspecialties, but with a clearer differentiation between ambulatory and hospital-based practice. Subspecialty-trained, master's degree nurses in hospital practice are called clinical nurse specialists, whereas those in ambulatory settings are more often educationally prepared as nurse practitioners or nurse midwives (Kassirer, 1994; Maule, 1994). Their training differs reflecting different roles and responsibilities.

In an era of reduced hospital stays, nurses have become invaluable in the management of patients in their homes as in Case 25-5.

CASE 25-6

*O.L. was a 79-year-old man admitted to the hospital because of intractable pain and decreased mobility resulting from a vertebral compression fracture. His physician pursued a diagnostic evaluation and ordered narcotics for the pain. He consulted a physical therapist for advice regarding pain management and mobilization. The physical therapist recommended that O.L. see an orthotist to be fitted with a thoracolumbar extension brace and she taught him to use a transcutaneous nerve stimulation unit. She also taught him to do specific bed exercises and provided him with a walker for trips to the bathroom.*

*In several days, although he was much more comfortable, O.L. felt that he would benefit by a short nursing-home stay before returning to his home to care for himself. The hospital social worker helped him make the necessary arrangements and discussed home care options in case he should need them once he returned home. He also mentioned to O.L. that an occupational therapist might be able to suggest some home modifications and adaptive equipment that might allow O.L. to return home more quickly.*

ALLIED HEALTH PROFESSIONALS

The major allied health professions are listed in Table 25.4. During this century, the development of the allied health disciplines has been one of the most dramatic developments in the healthcare delivery system, reflecting both the increasing complexity of patient care and an increased emphasis on rehabilitative strategies.

The relationships among the various allied health professional associations, the American Medical Association, and the certifying and licensing bodies governing each discipline are complicated, at times strained, and subject to fairly frequent modifications. An additional complicating factor in recent years has

Table 25.4  
Allied Health Professionals

Audiologists	Physical therapists	Recreational therapists
Dietitians	Radiologic technologists	Activities therapists
Laboratory professionals	CT/MRI technologists	Art therapists
Cytotechnologists	Mammographers	Dance therapists
Histological technicians	Nuclear medicine technologists	Music therapists
Medical laboratory technicians	Radiation therapists	Play therapists
Medical technologists	Ultrasonographers	Respiratory therapists
Occupational therapists and OT assistants		Social workers
		Speech pathologists and audiologists



been the tension between the federal government (Medicare, Medicaid), state governments (Medicaid), and the private sector created by efforts to contain costs while assuring quality.

## Physical Therapists

Physical therapists are mobility experts. Through neuromusculoskeletal evaluation and the use of a variety of treatment modalities they help patients to maintain or improve their ability to move about. Physical therapists practice in a variety of settings, providing inpatient, outpatient, and community-based services. Unique settings include community health centers, public schools, private practices, athletic centers, and specialty medical clinics as well as hospital, rehabilitation centers, and nursing homes.

Opportunities for specialization following entry-level education are increasing. The American Physical Therapy Association (APTA)-sponsored American Board of Physical Therapy Specialties presently offers board certification in six specialty areas: pediatric physical therapy, orthopedic physical therapy, sports physical therapy, clinical electrophysiology physical therapy, cardiopulmonary physical therapy, and neurological physical therapy.

A physical therapy assessment may include determination of motion, strength, and endurance abilities of the patient; evaluation of balance, coordination, and postural (static and dynamic) abilities; establishment of quantitative and qualitative profiles of movement abilities; development of a profile of the cardiopulmonary abilities of the patient; and definition of electrophysiological responses to various electrical modalities. Therapeutic regimens consist of a wide range of interventions from the application of specific modalities, heat, ice, ultrasound, diathermy, and so on, to exercise, musculoskeletal rehabilitation, and the reeducation of various functions. Many physical therapists provide definitive treatments for wounds such as pressure sores and diabetic ulcers. In addition to treatment of physical impairments, physical therapists provide a wide range of consulting services in areas such as health promotion and fitness, prevention of athletic injuries, and prevention of work-related injuries and trauma.

## Occupational Therapists

Occupational therapists use selected educational, vocational, and rehabilitative activities to help individuals reach the highest functional levels possible, become self-reliant, and build a balanced lifestyle of work and leisure. In partnership with their clients, they frequently work with other members of the healthcare team and with community agencies not only to treat patients with disabilities but also attempt to prevent disabilities from occurring. Whereas physical therapists focus on mobility, strength, and endurance, occupational therapists address activities of daily living such as bathing, dressing, cooking, money management, use of the telephone, and driving (see Case 25-6). Recent randomized controlled trials have documented that occupational therapy provided to homebound elders can improve functional abilities and quality of life (Clark *et al.*, 1997; Walker *et al.*, 1999) and can reduce falls (Cummings *et al.*, 1999).

Occupational therapists work in hospitals, clinics, schools, rehabilitation centers, home care programs, private practice, community health centers, nursing homes, day-care centers, and psychiatric facilities. A registered occupational therapist (OTR) carries professional and administrative responsibilities for occupational therapy programs and services and is responsible for evaluating clients, deciding on program goals, working with clients to implement those goals, and evaluating progress. In addition, OTRs educate students entering the field and may be involved in research.

Certified occupational therapy assistants (COTA) work under the supervision of an OTR. They are high school graduates or the equivalent who complete an associate degree program in an accredited university or community college or a 1-year certificate program in an accredited educational institution. A minimum of 2 months of supervised field work is also included. Graduates are eligible for certification as a COTA on passage of a national certification examination.



## Recreational Therapists

Recreational therapists constitute a diverse group of professionals. Some areas of interest and expertise of recreational therapists are (1) self-esteem/confidence building, (2) independent living/self-reliance development, (3) self-expression/enrichment of life, (4) group acceptance/development of interpersonal skills, (5) hospital and play therapy/fear reduction, (6) art and music therapy/self-expression and fulfillment, and (7) physical activities/physical condition and stress reduction. They are employed in a variety of settings including hospitals, rehabilitation centers, nursing homes, mental health centers, community parks and recreation departments, schools, sheltered workshops, and correctional centers.

Recreational therapists must complete an approved associate's degree program. Certification is awarded by the National Council for Therapeutic Recreational Certification after satisfactory completion of a certifying exam. Licensure or registration is also required in many states, often through the state's Board of Medical Examiners.

## Respiratory Therapists

On successful completion of the registry exam of the National Board for Respiratory Therapy, respiratory therapists become registered respiratory therapists (RRT). Under the direction of a physician, respiratory therapists are responsible for the administration of therapeutic gases (e.g., oxygen, carbon dioxide-oxygen mixtures); aerosols and humidity, bronchodilators, corticosteroids, aerosolized water; assisted ventilation, respirators; positive airway pressure, and chest physical therapy to mobilize secretions and stimulate cough, breathing exercises, and the like. They perform blood gas sampling and pulmonary function testing, and they provide individualized patient education and follow-up.

## Speech-Language Pathologists and Audiologists

Speech-language pathologists and audiologists are health professionals who deal with the normal and developmental aspects of human communication, communication disorders, and clinical techniques for evaluation and management of these disorders. Their training involves a minimum of 300 hours of supervised clinical experience and a 9-month clinical fellowship in a variety of settings including hospitals, rehabilitation facilities, and public and private outpatient settings. They often work closely with otorhinolaryngologists, neurologists, psychiatrists, dentists, and plastic surgeons. Much of their work involves children with congenital and development disorders, and the elderly who have acquired disabilities such as deafness and aphasia.

Audiologists are concerned with diagnosis and remediation of hearing loss. Responsibilities include prescription and fitting of hearing amplification devices. They are accountable for provision of auditory, speech, and reading training. Speech and language pathologists diagnose and remediate speech disorders (e.g., problems of fluency, voice, and articulation) and language disorders (e.g., aphasia, reading disorders, and delayed language development). Many are also involved in the evaluation and treatment of eating and swallowing problems, augmentative communication devices, and alternate forms of communication such as sign language and esophageal speech.

## Clinical Dietitians

Nutritional status is a very important component of health and disease. The evaluation of current nutritional status, calculation of adjustments needed to achieve nutritional well-being, development and implementation of a plan to meet those goals, and education of the patient and other caregivers are all important and expected responsibilities of clinical dietitians.

Most accredited hospitals and rehabilitation facilities require that nutrition support be provided by a *registered* or *licensed* dietitian. These titles denote a level of expertise acquired through an American Dietetics Association (ADA)-regulated combination of didactic and clinical learning. Many facilities require ADA registration, which documents passage of a professional exam and monitored maintenance of continuing education hours in compliance with ADA regulations. Some states have also implemented a licensing



procedure through state medical licensure boards, which protects the consumer from persons practicing under false credentials and guards against inappropriate practice behavior of its members. The initials R.D. or L.D. will appear with the person's signature if these higher levels of certification have been achieved. The term *nutritionist* has been used by many to imply professional expertise in the area of human nutrition. However, this title is not protected from misuse by persons with questionable educational background and sometimes inaccurate or unethical presentation of information to the consumer.

### CASE 25-7

*A.R. was an 8-year-old girl brought to the emergency room by her parents for evaluation of recurrent leg pains occurring at night, preventing her from sleeping. The episodes had been occurring occasionally for 4 months but more frequently for the past 2 weeks. Dr. Y. was working in the emergency room on the night that A.R. came in. The results of his examination of her were completely unremarkable. However, he ordered a complete blood count (CBC) with a differential count and an erythrocyte sedimentation rate (ESR) as a precaution. The machine-run CBC results showed normal parameters. The medical technologist who reviewed the differential white blood cell count detected several immature white blood cells. To further investigate the possibility of acute leukemia, a bone marrow biopsy was performed. After results of the special stains performed and review of the bone marrow aspirate by the pathologist, the diagnosis was confirmed. A.R. was expected to have a good prognosis because her disease was diagnosed at such an early stage.*

## Medical Technologists/Cytotechnologists

Laboratory professionals represent the single largest group of allied health professionals. This reflects the heavy reliance of modern patient care on analytical laboratory testing and procedures for diagnosis, treatment, and monitoring. There are several categories of laboratory professionals. Educational requirements differ based on scope of practice.

*Medical technologists* perform analytical testing, evaluate the validity of the results, and report the results to the physicians who requested the tests, as illustrated in Case 25-7. If there is a question regarding the clinical correlation of the results and the patient's condition, a clinical pathologist provides the consultation.

Medical technologists are able to work in any of the clinical laboratory specialties, i.e., blood bank, chemistry, toxicology, microbiology, and hematology. They are employed in hospital and independent laboratories as well as medical and industrial research laboratories. Some obtain specialty certifications after the medical technology certification. Many supervisors and managers hold master's degrees.

A *cytotechnologist* screens slides for the presence of cancer and other disease states. Any diagnosis of malignancy is confirmed by an anatomic pathologist. The largest portion of the work performed by a cytotechnologist is in the screening of Pap smears. Cytotechnologists also screen many nongynecological specimens such as bronchial washing and fine-needle aspirations of masses for the presence of cancer cells. Some take additional training and are employed in cytogenetics laboratories.

*Histological technicians* prepare tissue specimens for viewing by a pathologist. The histology laboratory has recently expanded its diagnostic capabilities via special types of stains, e.g., immunochemistry.

## Radiologic Technologists

Radiologic technologists can be subdivided into four major groups: radiographers, nuclear medicine technologists, radiation therapists, and diagnostic medical sonographers. Members of the first three groups, who are involved in the use of radiation of various types for either diagnostic or therapeutic purposes, are



different in several other ways from diagnostic medical ultrasonographers, who are involved in the use of high-frequency sound waves. Diagnostic medical sonographers are credentialed by the American Registry of Medical Sonographers, whereas the others receive their credentialing through the American Registry of Radiologic Technologists.

*Radiographers* [R.T.(R)s] are responsible for obtaining radiographs (x-rays) as requested by a physician to be interpreted by a radiologist. This involves working closely with patients and with a variety of sophisticated equipment. They must know how to properly position the patient, set the proper radiation exposure levels, protect the patient from unnecessary radiation exposure, and determine whether adequate images have been obtained. With the development of computed tomography, magnetic resonance imaging, and mammography, special training and certification are now required to operate these instruments.

*Nuclear medical technologists* [R.T.(N)s] administer radiopharmaceuticals to patients and operate a variety of scanning instruments that produce radiographic images of various parts of the body for diagnostic purposes. Brain, bone, liver, and thyroid scans as well as dynamic cardiac and pulmonary scans are examples of the tests they routinely perform.

*Radiation therapists* are involved in the administration of ionizing radiation primarily to cancer patients for therapeutic purposes. Because of the nature of cancer, and since treatments are generally given repetitively over a period of time, radiation therapy technologists often develop close relationships with patients and their families and are therefore called on to function as members of interdisciplinary teams.

Although most radiologic technologists work in hospital settings or in large clinics, *diagnostic medical ultrasonographers* work in a variety of settings. Cardiologists, obstetricians and gynecologists, and occasionally general surgeons and primary care physicians may employ ultrasonographers to assist them in the evaluation of common problems such as valvular heart disease and congestive heart failure, pelvic masses, pregnancy dating, gallstones, and peripheral vascular diseases.

## Pharmacists

Pharmacy is the third largest health profession after nurses and physicians. Almost 90% of active pharmacists are practicing in clinical settings. Another 10% are involved in the development, production, or distribution of medications, teaching, research, legal and regulatory activities regarding pharmaceutical practice, public health activities, association work, and journalism. The clinical work of pharmacists includes community pharmacy, hospital pharmacy, drug information centers, poison control centers, and supervision of dispensing practices in long-term care facilities such as nursing homes. An increasing number of residencies and fellowships are available for academic and clinical pharmacists in specialized areas such as psychiatry, geriatrics, internal medicine, pediatrics, pharmacokinetics, family medicine, and others.

*Pharmacists are involved in many clinical activities: verification of prescriptions for accuracy, legality, and physical and chemical compatibility; advice to patients and other healthcare providers regarding proper administration, potential side effects, and potential drug-drug and drug-nutrient interactions of prescription drugs; advice to patients and other healthcare providers regarding proper use and choice of OTC medications; advice to patients regarding personal health habits, smoking, drug abuse, and so on; referral of patients to other health professionals; instruction of patients and other healthcare providers regarding proper use of medical or surgical appliances, inhalers, colostomy bags, splints, and bandages; participation in mass screening programs, stool occult blood testing, hypertension screening, and the like; and participation in utilization review, medical audits, and other medical care evaluations in hospitals, nursing homes, and so on. Other services of a more innovative and advanced nature include pharmacokinetic and nutrition consultations and primary care of patients with special emphasis on hypertension, diabetes mellitus, and hyperlipidemia. Advanced trained pharmacists are also now able to conduct drug research with human subjects provided that a physician is part of the study team (Schultz & Brushwood, 1991).*



Pharmacists may be the nation's most accessible healthcare professionals. However, in retail community pharmacy practice, an important factor that limits the ability of pharmacists to provide good care is their lack of access to complete patient-related information. Pharmacists, more than any other healthcare professionals, are often relatively isolated from other professionals. Patients would benefit greatly from improved communication between physicians and pharmacists.

## Optometrists

Optometrists evaluate, diagnose, and manage a variety of pathological ocular conditions. Binocular and refractive conditions, along with accommodative and convergence relationships that can influence reading, learning, and other visual tasks, are major professional concerns. As is the case with other primary healthcare professions, the scope of optometric practice is governed by individual state laws. Optometrists may prescribe topical diagnostic pharmaceuticals throughout the nation and may administer a wider selection of therapeutic agents in half the states.

Optometric training leading to the O.D. (doctor of optometry) degree requires 4 years in an accredited school or college of optometry. Preadmission and undergraduate optometric requirements are parallel to those of other major health professions and include basic science courses such as biology, physics, advanced mathematics, organic chemistry, and microbiology. Postdoctoral residency programs are widely available. To obtain licensure, the optometric graduate must pass a board exam administered by the state in which he or she would practice.

Demarcations are sometimes indistinct between the professional roles of optometry and ophthalmology. Matters of serious ocular pathology and surgical intervention clearly require the expertise of an ophthalmologist, as well as systemic therapy, as might be suitable to remedy ocular pathologies and related disorders at a secondary or tertiary level of referral. Otherwise, in primary ophthalmic healthcare, the clinical activities of the two professions are very similar. Optometrists are employed as members of HMOs, in group practices, as industrial and sports vision consultants, in research capacities by ophthalmic companies, and in academic institutions.

## Social Workers

Social work practice focuses on the relationship between individuals and their environment and is directed toward defining and resolving problems that develop in this relationship. Social workers are therefore trained to evaluate the psychosocial aspects of an individual's situation. They are often able to provide supportive counseling to individuals and families and act as their advocates in situations where environmental changes would be helpful, as in Case 25-5. They are especially well trained to locate community resources that may enhance the quality of life of an individual or family. A majority of practicing social workers have a master's degree (M.S.W.). Social workers who have received special training in mental healthcare such as individual or family therapy are called *psychiatric social workers*.

The specific activities of a social worker depend somewhat on the occupational setting in which the social worker practices and the amount and type of training she or he has received. Common practice settings include medical and psychiatric hospitals and clinics, schools, nursing homes, special shelters, government agencies, the workplace, family service agencies, churches, and private practice. Social workers often function as case managers in settings in which interdisciplinary teamwork is practiced.

## Podiatrists

Podiatrists are clinicians trained to manage health-related conditions of the feet and ankles. Their 4-year training program, often supplemented with one or more years of residency, prepares them to utilize all of the same diagnostic and treatment approaches employed by allopathic and osteopathic physicians including the prescription of medications and various kinds of adaptive equipment (e.g., special footwear, orthotic devices, casts and splints), and performance of surgery. Many have hospital and operating room privileges.



Most work out of private offices while others are employed by various healthcare facilities. Certification as a doctor of podiatric medicine (D.P.M.) requires a case study preparation and final exam by the American Board of Foot Surgery and successful completion of the National Board Examination. All states require state licensure as well.

## Mental Health Professionals

The emergence of new theoretical perspectives on mental health, an accumulating empirical data base, demonstrations of effective and generalizable clinical procedures and programs, and broader social acceptance of mental health concerns have all contributed to the growth of the mental health professions (Richardson, 1988). The development of the biopsychosocial (Engel, 1977) and multisystem (Tapp & Warner, 1985) theories of health and illness along with theories of stress and coping (Lazarus, 1966; Selye, 1976) have blurred the distinctions between physical and mental health and resulted in the development of the fields of behavioral medicine (Schwartz & Weiss, 1978) and health psychology (Millon *et al.*, 1982). These developments have resulted in a diverse array of distinct yet overlapping mental health professions including psychiatry, psychology, counseling, marital and family therapy, social work, and psychiatric nursing.

### Psychiatry

Psychiatrists are physicians who specialize by completing a 3-year psychiatric residency during which they receive training and experience in the diagnosis and treatment of major mental illness. They may further subspecialize in order to work primarily with adults, children, or other identified groups.

Most contemporary U.S. psychiatrists have a strong biological orientation and are highly trained in the diagnosis and pharmacological treatment of major mental illness. Depending on training and interest, psychiatrists may also be skilled in psychotherapy and other forms of psychosocial treatment. As physicians, psychiatrists are licensed to practice medicine by each state and, after completion of an approved residency and comprehensive exam, are certified by the American Board of Psychiatry.

### Psychology

Psychologists are doctoral-level behavioral scientists, typically holding doctor of philosophy (Ph.D.), doctor of psychology (Psy.D.), or doctor of education (Ed.D.) degrees. The American Psychological Association recognizes four professional specialties within psychology: clinical psychology, counseling psychology, school psychology, and industrial-organizational psychology (American Psychological Association, 1981). Three additional professional specialty areas are emerging: neuropsychology, health psychology, and forensic psychology. Diplomate status granted by the American Board of Professional Psychology requires at least 4 years of postdoctoral experience in the specialty area, a written exam, and direct peer review of clinical skills. Professional psychologists are licensed for independent practice by all states.

*Clinical and counseling psychology* have evolved out of different historical contexts (Tipton, 1983; Whitley, 1984). Clinical psychology has traditionally had a greater emphasis on the diagnosis and treatment of children, severe psychopathology in all ages, and services delivered in inpatient mental health settings, whereas counseling psychology has had a greater focus on assessment and treatment in rehabilitation settings, vocational, educational, and family counseling agencies, and with persons experiencing adjustment problems and other less severe forms of psychopathology. Despite these differences, it has been estimated that these two specialties have 80–90% overlap in training skills, work settings, and professional roles (Watkins *et al.*, 1986). Clinical and counseling psychologists are employed in many settings, including private practice, medical schools, hospitals, universities, mental health centers, other human service agencies, and research foundations. Their training includes basic and clinical coursework, a doctoral dissertation, and a 1-year clinical internship.

*School psychologists* specialize in the learning and mental health needs of children in educational settings. They are usually employed in school systems or academic research institutions. *Industrial-*



*organizational psychologists* specialize in the study and design of organizational settings with regard to human performance and interpersonal relationships and are usually employed by large corporations and public institutions or in academic research settings. *Neuropsychologists* are typically clinical or counseling psychologists who complete special pre- and postdoctoral training in neuropsychology. Neuropsychologists conduct neuropsychological evaluations and contribute to diagnosis and treatment planning of patients with a variety of neurological injuries and rehabilitation concerns. They are typically employed in medical and rehabilitation settings but may also work with school systems and in academic research capacities. *Health psychologists* are also trained as clinical or counseling psychologists but specialize through pre- and postdoctoral work in preventive health and the psychological needs of general medical and surgical patients. Health psychologists work in a variety of hospital and medical settings. *Forensic psychologists* are clinical or counseling psychologists who further specialize in forensic issues and typically work in penal, law enforcement, or psychiatric hospital settings. Individuals trained at the master's level in psychology may be identified as psychological assistants or associates and are licensed by many states to provide limited psychological services under the supervision of a licensed doctoral-level psychologist.

## Other Mental Health Professions

*Counselor, therapist, and family therapist* are generic terms and have only recently begun to be defined and licensed by states. Typically a *counselor* or family therapist has a master's degree in counseling or family therapy from an accredited college or university and has received a minimum of 6 months to 1 year of supervised clinical experience on at least a half-time basis. A limited number of practicing counselors and family therapists hold doctoral degrees.

Counselors are usually affiliated with the American Association of Counseling and Development. They may specialize through graduate study and work experience in a variety of areas such as mental health counseling, counseling of children, marriage and family counseling, school counseling, or rehabilitation counseling. Counselors who work with persons experiencing mental health problems should be further certified by the National Academy of Certified Clinical Mental Health Counselors. Certified Clinical Mental Health Counselors are licensed for independent practice in 28 states (Weikel & Palmo, 1989).

*Family therapists* are usually affiliated with and should be certified by the American Association of Marriage and Family Therapy (Nichols, 1984). Often counselors and family therapists belong to both organizations but may prefer to refer to their work as either counseling or family therapy. Counselors and family therapists are employed in a variety of settings including mental health centers, guidance and counseling agencies, schools, and increasingly in private practice.

As previously discussed, social workers are also major providers of mental health services. Social workers often have unique skills and training qualifying them for roles as case managers within mental health organizations (Richardson, 1988). They may also be trained as psychotherapists or counselors. Psychiatric nurses are also important providers of mental health services. Nursing training is heterogeneous, and as a result there are multiple levels of training that may qualify a nurse to provide psychiatric services. The term *psychiatric clinical nurse specialist* has been suggested as designating an R.N. with a master's degree in psychiatric services. Such qualified nursing personnel may play an increasing role in the delivery and coordination of mental health services, especially in hospital settings (Richardson, 1988).

## Pastoral Care

Ministers with additional training in either pastoral counseling or pastoral care also provide counseling services. *Pastoral counselors* are individuals who usually have an M.Div. (master of divinity) degree and have completed an additional 3–5 years of residency training in pastoral counseling. Some go on to obtain a D.Min. (doctor of ministry) degree as well. They typically work in outpatient counseling centers, clinics, and through churches, and provide both psychological and spiritual counseling services. They are credentialed by the American Association of Pastoral Counselors.



---

## MENTAL HEALTH: A REPORT OF THE SURGEON GENERAL (1999)

1. *Mental health is fundamental to overall health. Mental disorders are real health conditions that have an immense impact on individuals and families.*
  2. *The efficacy of mental health treatments is well documented. A range of treatment exists for most mental disorders. Two broad types of intervention include psychosocial treatments, e.g. psychotherapy or counseling, and psychopharmacologic treatments; these often are most effective when combined.*
  3. *About 10% of the U.S. adult population use mental health services in the health sector in any year, with another 5% seeking such services from social service agencies, schools, or religious or self-help groups. Yet critical gaps exist between those who need service and those who receive service. Gaps also exist between optimally effective treatments and what many individuals receive in actual practice settings.*
- 

Hospital chaplains who provide pastoral care receive from 1 to 2 years of residency training after their 3-year M.Div. degree program. They are trained to provide pastoral care to people in crisis, and work primarily in institutional settings such as hospitals, mental health facilities, or hospices. The training is provided by the Association for Clinical Pastoral Education (ACPE), the College of Pastoral Supervision and Psychotherapy (CPSP), and/or the National Association of Catholic Chaplains (NACC). Certification for Chaplaincy is by the College of Chaplains or the NACC. Many chaplains go on to obtain their D.Min. degree.

### CASE 25-8

*Frances Tuttle was a 57-year-old stenographer who had for the last year been experiencing migratory muscle and joint pains. She had seen several allopathic physicians who had diagnosed a nonspecific inflammatory condition and prescribed various nonsteroidal anti-inflammatory medications all of which upset her stomach and caused her blood pressure to go up and her ankles to swell. On the advice of a church friend, she decided to see a naturopath. She was pleased that he did not prescribe any medications other than some vitamins and herbs, and that after his treatments, which included dietary changes and regular exercise, she actually began to feel a great deal better.*

---

## NONTRADITIONAL HEALTHCARE PRACTICES

In addition to the methods employed by the traditional healthcare disciplines, a variety of alternative approaches to health maximization, maintenance, and restoration exist, some of which are listed in Table 25.2. These alternatives to traditional healthcare are becoming increasingly popular in the United States, particularly in the last decade. Many of these practices are based on entirely different conceptual models of health and illness, and most have not been subjected to the same level of scientific scrutiny as the conventional methods. It should be acknowledged, however, that the effectiveness of many conventional practices has not been clearly established either. While these approaches are considered to be “nontraditional, alternative, or unconventional” in the United States, up to 70% of the world’s population rely on nonallopathic systems of healing (Krippner, 1995).

Interest in alternative forms of healthcare has been growing rapidly in the United States primarily among upper-middle-class, well-educated, non-African-American people. In a population survey reported by Druss (1999), 8.3% of respondents reported using at least one unconventional therapy in the past year, of whom 80%